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Demographic Development in Ukraine¹

Abstract

The article deals with the demographic situation in Ukraine at the close of 20th century. Changes in population size and proportions of its forming sources after the last All-Soviet Union general census of the population (1989) are the focus of attention in the article. The author investigates the main features of fertility, mortality, marriages, divorces and demographic development of Ukrainian family for this period of time. There was also examined the contribution of natural increase/decrease of population and its net-migration to the process of depopulation and deepening of the demographic crisis in the country. The author remarked the tendency to growth of the indices of demographic loading per 1000 mid-year population of working age and transformations in its structure. There was predicted the further aging of population and lessening of its labour potential in the nearest future. There are no reasons to expect any swift positive changes in the demographic situation now. The demographic crisis is deepening.

Introduction

The priority in calculating the population number in Ukraine in the middle of 17th century belongs to the known Ukrainian historian A. Rihelman. In 1785-1786, using the methods of political arithmetic he counted up the number of inhabitants within the bounds of the territory ruled by

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Translated from Ukrainian text "Demohrafichnyi rozvytok Ukraïny u 1990-kh rokakh", *Sotsiologhiia: teoriia, metody, marketynh*, 2000, № 3, pp. 69–85.

Bohdan Khmel'nitskii during the Ukraine and Russia reunion. A. Rihel'man estimated this population at four millions of inhabitants in 1654.

The population of Ukraine increased fast in 20th century, especially in its second half, after the abolition of serfdom. If in 1835 the population of Ukraine amounted to 8.7 millions of inhabitants, in 1880 it ran to 15.7 millions, and in 1897 numbered already 21.2 millions. On the eve of the First World War the population of Ukraine grew to 28.9 millions.

In the 20th century the people of Ukraine went through several demographic crises. The first one was generated by civil war and the war communism policy in 1917–1921 accompanied by repressions and economic crush. The second one, dating to 1929–1934, was caused by collectivization of agriculture with its complete ravage of the whole tenor of rural life, deportations of a vast majority of families and terrible famine of 1932–1933. The third one was bound up with the Second World War in 1941–1945. All these political, military, social and economic crises of the first half of 20th century were accompanied not only by sizable increase in mortality, but also by appreciable diminution of fertility owing to forced or conscious refusal or restriction of child-bearing. Women of the thirties did not hesitate choosing the inner-family regulation of reproductive behaviour. The abolition of abortions in 1936 did not practically change the situation. The Second World War has only strengthened the tendency to regulating of child-bearing inside the family. A new type of reproductive behaviour became prevailing.

The fourth demographic crisis has shown up in Ukraine in the second half of the eighties. At that time a swift reduction of fertility and increasing mortality were spread widely. The demographic situation after the collapse of the USSR was essentially aggravated. The falling of quality of life, unemployment and worry about the morrow forced many people to reconsider their marriage and reproductive plans. On the 3rd of January of 2002 the Decree of the President of Ukraine Leonid Kuchma "On Measures of Stimulation of Fertility in Ukraine" came into force. According to this document the improving of demographic situation, supporting of families with children, strengthening of social defense of maternity and childhood are the priority directions of the state social policy in Ukraine.

1. General remarks on population development

The population of Ukraine, according to the latest population census in the USSR (1989), amounted to 51706.7 thousands. In early 1990s it was increasing. For the 1st of January, 1993, it ran to 52244.1 thousands.

The process of depopulation started in the countryside in 1979 and only in 1991 its presence was revealed in urban areas — in towns and cities. In the next years this process strengthened and broadened, however the immigration into Ukraine in 1991 and 1992 (accordingly 148.4 and 228.1 thousands) from abroad compensated the natural decrease of population and provided its growth up to the end of 1992.

In 1993 the immigration into Ukraine reduced to 49.6 thousands, and in 1994 for the first time a quite appreciable flow of emigration from Ukraine was registered. That year the migration losses amounted 143.2 thousands. All the next years Ukraine invariably loses its population in the migration exchange with the other countries. Under the pressure of the deepening depopulation and increasing emigration the population of Ukraine becomes less and less. According to the data of 1st of January, 2001, its population reduced to 49291.2 thousands. Thus, for the last 8 years the population losses amounted in Ukraine to 2952.9 thousands. The Ukraine quitted the list of European countries with population 50 millions people and over (Tabl. 1).

Table 1

Population change, natural increase/decrease and net migration, in thousands. Ukraine. 1989–2000*

Year	Population on 1 st January	Population change		
		Total increase/decrease	Natural increase/decrease	Net migration
1989	51706.7	136.6	92.3	44.3
1990	51838.5	105.9	26.6	79.3
1991	51944.4	112.2	-36.2	148.4
1992	52056.6	187.5	-100.6	288.1
1993	52244.1	-129.7	-179.3	49.6
1994	52114.4	-386.0	-242.8	-143.2
1995	51728.4	-394.3	-299.8	-94.5
1996	51334.1	-440.6	-309.5	-131.1
1997	50893.5	-393.6	-311.6	-82.0
1998	50499.9	-394.3	-300.7	-93.6
1999	50105.6	-394.8	-350.0	-44.8
2000	49710.8	-419.6	-373.0	-46.6
2001	49291.2	—	—	—

* Sources: [12; 14; 15].

The share of urban inhabitants in Ukraine from the beginning of nineties kept the level of 67.8–68.0% each. The permanent portion of towns folk indicates that the process of redistribution of population between rural and urban areas in Ukraine is already completed. Thus, more than two thirds of Ukrainian population live today in cities and towns.

Discussing the sex proportion of population in Ukraine it is necessary to point out the gradual increasing of the male share from the early nineties. If in 1989 the portion of the male population numbered 46.2%, then in 2000 it constituted 46.5% already.

There were 860 males per 1000 females in Ukraine in 1989 on the whole. At the beginning of 2001 this proportion changed and amounted to 870. The optimum ratio of males and females was noted in the west region of Ukraine: in Zakarpatska, Lvivska, Rivnenska, Ivano-Frankivska and Volynska oblasts there were 928, 910, 908, 903 and 900 males per 1000 females accordingly. Meanwhile in the central and north-eastern oblasts — Chernihivska, Cherkasska, Vinnitska, Poltavska, Sumska and Kharkivska, there were 824, 839, 844, 851 and 855 males per 1000 females correspondingly. Such disproportion of males and females in population exerts pressure upon the marriage market, impedes the choice of marriage partner and narrows on the whole the women chances to link their destinies with worthy man.

The structure of Ukrainian population by major age groups is characterized by the gradually increasing of the pensioner's contingent. At the same time, the part of population of age 0–15 years (children and teenagers) tends to stable reduction. However, in the late nineties the share of population of active working age (16–54 for female, 16–59 for males) began to increase from 55.7% in 1991 to 57.9% in 2000 (Tabl.2). On the whole, the age structure of Ukraine's population is the regressive one and is able to provide only the narrowed reproduction of population.

In its turn the narrowed reproduction is accompanied by depopulation and developing of deformed age structures. The largest number of pensioners is concentrated today in northern and north-eastern oblasts of Ukraine (Chernihivska, Sumska, Poltavska, Zhytomyrska) and its central region as well (Vinnitska, Cherkasska, Kirovohradska oblasts), where the portion of pensioners has exceeded the 25% level. The most aged population lives in Chernihivska oblast, where 356 of every 1000 inhabitants have already reached the pensioner status.

The situation in the west region of Ukraine is much better. In Zakarpatska, Rivnenska, Volynska, Ivano-Frankivska, Lvivska and Cher-

nivetska oblasti, the share of children and teenagers of age 0–15 years amounts to 20% and more. The youngest population lives in Zakarpatska and Rivnenska oblasti, where the portion of youth numbered 23.3–23.5% in 2000.

Table 2**Population by major age groups, in per cent. Ukraine. 1989–2000***

Year	Population on 1 st January	Proportion of population at ages, in per cent		
		0–15	16–54 (females), 16–59 (males)	55+ (females) 59+ (males)
1989	100.0	23.0	55.8	21.2
1990	100.0	22.9	55.8	21.3
1991	100.0	22.8	55.7	21.5
1992	100.0	22.6	55.7	21.7
1993	100.0	22.4	55.7	21.9
1994	100.0	22.2	55.7	22.1
1995	100.0	21.9	55.7	22.4
1996	100.0	21.5	55.8	22.7
1997	100.0	21.1	56.0	22.9
1998	100.0	20.7	56.1	23.2
1999	100.0	20.1	56.6	23.3
2000	100.0	19.4	57.2	23.4
2001	100.0	18.7	57.9	23.4

* Sources: [1–5; 7; 9; 11; 13–15].

2. Natural increase/decrease of population

The basic source of population forming in Ukraine is its natural increase being the result of interaction of fertility and mortality. In spite of the widely spread opinion explaining the fertility fall mostly by the swift reduction of all the life standards in Ukraine in nineties, there are some other essential reasons for the worsening of population reproduction. These reasons have exclusively demographic origin: the entering into the reproductive age of relatively scanty cohorts of women born in seventies, the increasing of aged population and at last the transition to a monochild family pattern in Ukraine which can not provide the expanded reproduction of population.

The fall of fertility in Ukraine started in 1987, just after its raising in 1983–1986, when the relatively large cohorts of women born in sixties entered the reproductive age. The average annual rate of births number decrease amounted to 5.03% in 1987–2000. Simultaneously the mortality increase took place: for the same period of time the average annual rate of death number growth ran to 2.12%. Let us point out that the fall of fertility was faster than the raising of mortality. So the contribution of lessening numbers of births into the depopulation processes in Ukraine turned out to be more considerable.

There is no doubt that economic burden of transition period played the leading part in the modern demographic processes development, forcing people to shelve their plans for marriages and child-bearing for better days.

The eloquent evidence of the demographic situation worsening in Ukraine is the dynamics of total fertility rate. The size of this coefficient changed from 2.09 children in 1985–1986 to 1.1 children in 1999–2000 (almost twice). In 1985–2000 the fertility in Ukraine lessened by half and its decrease in urban areas was essentially faster compared to the countryside (correspondingly, 2.17 times versus 1.68 times). And if the frequency of child-bearing in urban areas was higher in 1985 than in the countryside (crude rate of birth constituted accordingly 15.6‰ versus 13.8‰), five years later, in 1990, the intensity of births in rural and urban areas ran to the same level (12.7‰). But in the next years crude rate of births showed the higher level of child-bearing in the countryside (in 2000, 9.3‰ versus 7.1‰ in the urban areas).

The most significant losses of population from its natural decrease took place in Czernihivska, Luhanska, Poltavska and Kirovohradska oblasts, where the exceeding of mortality above the fertility ran to the highest level in Ukraine (in 2000, accordingly 12.8, 11.4, 11.1 and 10.9 per 1000 mid-year population). The west region of Ukraine suffered the least demographic damage, where the crude rates of natural decrease were not higher than 2.9 per 1000 mid-year population. Zakarpatska oblast was the only region in Ukraine where the natural increase of population took place in 2000 (the crude rate amounted to 0.4‰).

The rate of mortality growth in Ukraine in 1985–2000 was lower than the rate of fertility fall — 1.22 versus 1.98 (Tabl. 3). In other words, mortality increased slower than the fertility reduced.

However the fertility in urban areas increased more rapidly (1.37) than in the countryside (1.06). That is why its relative dimensions in the countryside were permanently higher than in urban areas: rural 15.9‰

versus urban 10.1‰ in 1985 and accordingly 19.0‰ versus 13.6‰ in 2000 (Tabl. 3).

Table 3

Crude rates of birth, death and natural increase/decrease of population, per 1000 mid-year population. Ukraine. 1985–2000*

Crude rates	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Live births, total including	15.0	12.7	12.1	11.4	10.7	10.0	9.6	9.1	8.7	8.3	7.8	7.8
urban areas	15.6	12.7	11.9	11.0	10.1	9.3	8.8	8.4	8.0	7.6	7.1	7.1
rural areas	13.8	12.7	12.6	12.5	12.0	11.6	11.1	10.7	10.3	9.9	9.4	9.3
Deaths, total including	12.1	12.1	12.9	13.4	14.2	14.7	15.4	15.2	14.9	14.3	14.8	15.3
urban areas	10.1	10.2	10.8	11.4	12.2	12.8	13.6	13.3	12.9	12.5	13.0	13.6
rural areas	15.9	16.1	17.2	17.6	18.5	18.8	19.1	19.2	19.0	18.2	18.7	19.0
Natural increase/decrease including	2.9	0.6	-0.8	-2.0	-3.5	-4.7	-5.8	-6.1	-6.2	-6.0	-7.0	-7.5
urban areas	5.5	2.5	1.1	-0.4	-2.1	-3.5	-4.8	-4.9	-4.9	-4.9	-5.9	-6.5
rural areas	-2.1	-3.4	-4.6	-5.1	-6.5	-7.2	-8.0	-8.5	-8.7	-8.3	-9.3	-9.7

Sources: [1–3; 5; 7; 9; 11; 13–16].

The dynamics of natural decrease of population in Ukraine reflects the current developing of depopulation processes. During the nineties it was the basic component of demographic losses in Ukraine. Its dimensions were permanently increasing since 1991 from 0.8‰ to 7.5‰ in 2000.

2.1. Fertility

The reduction of fertility in the nineties took place practically in all age groups (Tabl. 4). The only exception were the women of 45–49: they gave birth to their sons and daughters with previous intensity but very seldom (only 0.1 live births per 1000 mid-year women of this age).

The comparative analysis of fertility by age groups in Ukraine shows that nowadays the highest childbirth remains in 20–24 age group. At the beginning of nineties women of this age gave birth to 159 children and in 1998 — to 101 children per 1000 mid-year women of this age, but in 1999–2000 — only to 93. At the elder women age groups fertility was reduced to 30%.

Table 4**Age specific fertility rates, live births per 1000 mid-year women by age groups. Ukraine. 1985–2000***

Age groups	1985–1986	1990–1991	1994–1995	1995–1996	1996–1997	1997–1998	1999	2000
Females of 15–49, total including the certain ages:	60.9	52.2	40.0	36.6	34.6	32.8	30.5	30.3
under 20 ¹	51.2	59.2	55.4	50.9	45.7	41.3	35.0	32.1
20–24	170.7	159.2	120.6	111.5	108.7	100.6	93.4	92.7
25–29	111.6	85.3	67.0	62.6	61.0	58.4	55.5	55.8
30–34	55.5	39.6	28.5	26.5	26.2	26.0	25.7	26.4
35–39	20.7	14.5	10.4	9.3	9.4	9.1	8.7	8.7
40–44	3.8	3.2	2.2	1.9	1.9	1.9	1.9	1.9
45–49	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total fertility rate	2.1	1.8	1.4	1.3	1.3	1.2	1.1	1.1

* Sources: [1–9; 11–16].

And only the level of fertility in the group of women under 20 remained for a long time without changes (51–59 live births per 1000 mid-year women of this age). But after 1996 the age specific fertility rates for this group began to reduce rapidly and reached 32.1‰ in 2000. In other words the number of child-bearings by mothers under 20 lessened almost by half (1.84) during the past 20 years.

In those years the essential growth of extra-marital births was observed: the share of children born by mothers out of wedlock increased from 8.4% in 1985 to 17.9% in 2000 or twice as much. Before 1993 the children born out of wedlock by peasant-women appeared more often than those brought into the world in the urban areas. But since 1993 this situation changed. The intensity of extra-marital births in urban

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When calculating the age Specific fertility rate for age group under 20 females in age 15–19 were taken into consideration.

areas started to grow. The spreading of extra-marital fertility was faster than in the countryside (2.24 versus 1.8).

Notwithstanding the tendency to reducing during the nineties, the problem of abortions remains still actual in Ukraine. The number of legal abortions per 100 births (including still-born) amounted to 127 in 2000. The state and society must take into consideration the danger of this situation.

It is necessary to underline that the main reason for population decrease in Ukraine is the lessening of child-bearing. If in 1985 the number of live births per 1000 mid-year population amounted to 15.0, in 2000 it ran only to 7.8. The crude rate of births has never been as low as now.

The lowest fertility was observed in 2000 in east and north regions of Ukraine. The crude rates of births in Donetska, Luhanska, Kharkivska, Chernihivska, Sumska, Poltavaska, Zaporizka, Dnipropetrovska oblasts made up accordingly from 6 to 7 child-births per 1000 mid-year population. Meanwhile in the west region these indices were appreciably higher: in Rivnenska, Volynska, Zakarpatska, Ivano-Frankivska and Chernivetska oblasts the crude rates of births numbered 10–11 child-bearings per 1000 mid-year population in 2000.

The highest numbers of this index were observed in the countryside of Rivnenska, Volynska, Zakarpatska and Chernivetska oblasts, where the crude rates of births ran to 11.7–13.8 live child-bearings per 1000 mid-year rural inhabitants. In urban areas, the highest level of fertility took place in Zakarpatska, Volynska, Rivnenska, Ivano-Frankivska and Ternopil'ska oblasts where the crude rate of births amounted to 8.6–10.0 live child-bearings per 1000 mid-year of urban inhabitants in 2000.

2.2. Mortality

The level of mortality has the great influence on the population dynamics in Ukraine. In 1990–1995 the number of dead inhabitants constantly increased. Simultaneously the crude rates of deaths exhibited a tendency to growth. However in 1996 the contingent of dead decreased by 2.0 per cent compared to the previous 1995 and the crude rate of death got down by 1.3 per cent as well. This tendency to reducing of mortality level took place in Ukraine up to 1999. But during two last years the number of dead started to increase, the crude rate of death amounted to 15.3‰ (the level of 1995–1996). In 2000 the mortality in the countryside turned out to be considerably higher than in urban areas: 19.0 deceased versus 13.6 per 1000 mid-year population (Tabl. 3).

The inhabitants of north and east regions of Ukraine died in 2000 more often. In Chernihivska, Sumська, Poltavська, Luhanska and Donetskа oblasts the crude rates of deaths made up 17.0–19.7‰. The highest level of mortality was observed in Chernihivska oblast where in the countryside this coefficient ran to 27.8 per 1000 mid-year population, and in urban areas — accordingly 14.2. The high level of mortality took place in the countryside of Sumська and Poltavська oblasts: accordingly 25.3‰ and 23.5‰. In 2000, in the urban areas the higher level of mortality was registered in the east region — Luhanska (17.0‰), Donetskа (16.8‰) and Dnipropetrovська (15.1‰) oblasts.

In Ukraine the dominating causes of deaths remain the same as before: coronary heart diseases, oncological diseases, including malignant tumors, and accidents, homicides, suicides and other external causes. In 2000, in Ukraine, the level of mortality because of these diseases ran to 942, 199 and 149 deaths per 100000 mid-year population (Tabl. 9). Unfortunately, the mortality due to oncological diseases remained at the level of 1990–1995, though the population of working age ran the danger to die of these causes rarely than it used to be in the first half of the nineties. The number of deaths due to poisoning and other external causes including alcoholic poisoning of people of working age have not decreased till now.

Inhabitants of Chernihivska, Poltavська, Vinnitska and Kyivська oblasts die mostly because of coronary heart diseases; due to oncological diseases — in Sevastopol, Kirovohradska and Zaporizka oblasts; because of accidents, poisoning and traumas — in Donetskа, Luhanska, Kharkivська and Zaporizka oblasts; due to respiration organs diseases — in Sumська, Volynська, Kirovohradska, Chernihivська oblasts.

More men die because of accidents, homicides, suicides and other external causes than women do (4.3). The exogenous mortality is noticeably increasing in all age groups both men and women over thirty. The most vulnerable representatives of this contingent are ones aged 50–59 (Tabl. 5).

2.2.1. Infant mortality

Since 1996 the infant mortality is reducing both in urban and rural areas amounting to 11.9 deaths of infants under 1 per 1000 live births in 2000. Since 1997 more infants have died in urban areas than in the countryside and this trend is preserved till now.

Table 5

**Age specific death rates, deaths per 1000 mid-year population
by age groups. Ukraine. 1985–2000***

Age groups	1985– 1986	1990– 1991	1994– 1995	1995– 1996	1996– 1997	1997– 1998	1999	2000
Deaths, total including the certain ages:	11.6	12.6	15.1	15.3	15.0	14.4	14.9	15.4
0–4	4.0	3.2	3.4	3.4	3.3	3.1	3.1	2.9
5–9	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
10–14	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
15–19	0.8	0.9	1.1	1.0	0.9	0.9	0.9	0.9
20–24	1.2	1.5	1.8	1.7	1.7	1.6	1.7	1.7
25–29	1.5	1.7	2.4	2.5	2.2	2.1	2.2	2.3
30–34	2.0	2.3	3.2	3.3	3.1	2.9	3.1	3.3
35–39	2.7	3.2	4.5	4.7	4.4	4.0	4.3	4.6
40–44	4.6	4.5	6.7	6.9	6.4	5.8	6.2	6.6
45–49	6.2	7.3	9.3	9.9	9.2	8.5	8.8	9.4
50–54	9.6	9.9	13.6	13.9	13.1	11.8	12.2	12.8
55–59	13.3	14.7	18.1	19.0	18.4	17.1	17.8	18.0
60–64	18.9	20.7	26.1	26.0	25.3	23.5	24.6	25.2
65–69	29.4	29.0	35.5	36.3	36.0	34.6	35.4	35.8
70 and over	80.9	87.6	95.4	91.2	88.2	84.4	84.7	85.7

* Sources: [1–3; 5–7; 9; 11–16].

Most children under 1 die because of diseases of pre-natal period and inborn anomalies: accordingly 46.3 and 34.7 infants of this age per 1000 live births in 2000. Less deaths are caused by respiration organs diseases and infectious and parasitical diseases: the level of mortality due to these causes amounts to 7.8 and 6.0 deaths accordingly during the first year of life per 1000 live births. It should be underlined that in 2000 the frequency of infant mortality due to accidents, poisoning and traumas has grown shorter up to 8.7 deaths per 1000 live births though in 1998–1999 some increasing of exogenous mortality because of these causes has taken place: 9.1‰ and 9.7‰ accordingly. The highest level of infant mortality is observed in the east region of Ukraine (Zaporizka, Luhanska, Dnipropetrovska and Donetska oblasts) and in the west of country (Ivano-Frankivska, Rivnenska and Chernivetska).

2.2.2. Life expectancy at birth

The population aging has great influence on the change of mortality level. The rising share of inhabitants aged 65 and over in conjunction with permanently falling quality of life is accompanied by shortening of life expectancy at birth. Since the early nineties this index has reduced by 2.8 years and amounted in 1999–2000 to 67.9 years. The rate of reduction of the life expectancy at birth for men is higher than for women: during nineties this index for men has grown shorter by 3.5 years and numbered in 1999–2000 62.4 years; for women — only by 1.4 and made up 73.6 years (Tabl. 6). It should be noticed that mortality decrease taken place in Ukraine in 1996–1998 was accompanied in this short period of time by rising of life expectancy at birth though its indices never could reach the level of 1990. In 1999–2000 the life expectancy at birth in Ukraine is characterized by stabilization of its level.

Table 6

Life expectancy at birth. Ukraine. 1958–2000*

Year	Population total	Including	
		Males	Females
1958–1959	69.8	66.1	72.6
1961–1962	70.9	67.3	73.6
1965–1966	71.6	67.7	74.5
1969–1970	70.8	66.5	74.3
1979–1980	69.7	64.6	74.0
1985–1986	70.5	65.9	74.5
1989–1990	70.7	65.9	75.0
1991–1992	69.3	64.2	74.2
1992–1993	68.7	63.5	73.7
1994–1995	67.2	61.8	72.7
1995–1996	66.9	61.4	72.7
1996–1997	67.4	61.9	73.0
1997–1998	68.1	62.7	73.5
1998–1999	68.3	63.0	73.7
1999–2000	67.9	62.4	73.6

* Sources: [1–3; 5; 7; 9; 11–16].

2.3. Marriages, divorces, family

The demographic development of family and tying together with it marriages and divorces exert essential influence on population reproduction and first of all on fertility. It is just a family that provides the change of generations, the primary socialization and children upbringing. Family life conditions have a great influence upon the health of its members and, therefore, on the level of inhabitants mortality.

Together with the family the marriages constitute the social institutions providing the social-economic determination of demographic processes, first of all, fertility. The marriages as well as child-bearing feel the influence of demographic waves. The shortening of contracted marriages after 1991 can be explained not only by painful situation in Ukraine stricken by economical crisis. The increase of postponed marriages should be explained as well by entering into marriageable age not numerous generation of born in the seventies. The number of contracted marriages have a chance to grow only in the middle of the current decade as soon as women born in 1983–1987 will enter the marriageable age.

These days the institutions of marriage and family undergo the complicated process of rebuilding. It is accompanied by some conflicting and undesirable consequences such as falling of childbirth below the level providing the normal reproduction of generation, increasing of single-parent families, broadening of extra-marital births. Child-bearing out of wedlock as well as the marriage behavior transformation are not particularly the Ukrainian phenomenon. The behavior samples of such kind are practiced on a large scale today in the majority of countries in the world and are approved there by public opinion.

Both the absolute and the relative dimensions of registered marriages diminished in Ukraine during the last 10 years (Tabl. 7). It should be pointed out that these changes took place not because of divorces but due to lessening of number of registered wedlocks.

Notwithstanding the widely spread opinion that the constantly increasing divorces to enormous proportions has struck a crushing blow to the matrimony institution in Ukraine, in fact such a threat is really groundless. The increasing of divorces number took place indeed from 1989 till 1992. However since 1993 both the absolute and the relative dimensions of registered divorces began to fall. Most likely, the peak of marriage dissolution, observed in the early nineties, was the direct reaction upon the worsening of living standards in Ukraine.

In 1980–1990 the number of registered divorces per 1000 mid-year population varied within the limits from 3.5‰ to 3.7‰. In 1991 the rel-

ative dimensions of divorces began to grow and reached its peak (4.3‰) in 1992. Later on these indices began decreasing in consecutive order up to 4.0‰ in 2000 (Tabl. 7).

Table 7**Marriages and divorces. Ukraine. 1985–2000***

Spe- fica- tion	Marriages registered, thousands	Per 1000 mid-year population	Divorces registered, thousands	Per 1000 mid-year population
1985	489.9	9.6	183.4	3.6
1990	482.8	9.3	192.8	3.7
1991	493.1	9.5	200.8	3.9
1992	394.1	7.6	222.6	4.3
1993	427.9	8.2	219.0	4.2
1994	399.2	7.7	207.6	4.0
1995	431.7	8.4	198.3	3.8
1996	307.5	6.0	193.0	3.8
1997	345.0	6.8	188.2	3.7
1998	310.5	6.2	179.7	3.6
1999	344.9	6.9	175.8	3.5
2000	274.5	5.5	197.3	4.0

* Sources: [1–7; 9; 11–16].

The number of registered marriages began to grow after 1996 but the frequency of its contracting was never as high as at the first half of nineties. Thus, the situation in family — marriage relations sphere began in the second half of nineties to improve. It was observed as well that the marriages are broken down the most often in the interval of duration 1–4 and 5–9 years. The marriages termination in the first year of its existing as well as in the interval of duration 15–19 years are not so often. Matrimonial couples after twenty years life together dare to divorce more often than those living in wedlock alliance during 15–19 years (Tabl. 8).

Since 1994 the frequency of marriage dissolving in the interval of duration 1 year and since 1992 in the interval of duration 1–4 years reduced year by year but in all other intervals the relative dimensions of breaking down conjugal unions have a tendency to increasing every year. The strength of family ties is falling after ten years of life together too appreciably.

Table 8**Divorces by duration of marriage. Ukraine. 1985–2000***

Year	Divorces registered, total	Duration of marriage, years					
		under 1	1–4	5–9	10–14	15–19	20 and over
Thousands							
1985	183.4	4.8	62.1	51.7	27.2	15.7	21.9
1990	192.8	8.6	63.1	48.9	29.4	18.5	24.3
1991	200.8	8.6	66.7	51.6	31.1	19.4	23.4
1992	22.6	11.3	74.7	56.7	33.8	21.5	24.6
1993	219.0	10.9	71.8	57.0	33.8	21.7	23.8
1994	207.6	11.3	68.3	54.3	31.5	19.9	22.3
1995	198.3	10.5	63.3	54.0	30.1	19.1	21.3
1996	193.0	8.8	58.4	53.8	30.4	19.1	22.5
1997	188.2	6.7	55.1	53.7	30.7	19.2	22.8
1998	179.7	6.3	49.5	50.7	30.2	18.9	24.1
1999	175.8	5.6	46.7	50.0	30.5	19.1	23.9
2000	197.3	6.4	46.3	53.0	35.3	22.5	33.8
Per 100 registered divorces							
1985	100	2.6	33.9	28.2	14.8	8.5	12.0
1990	100	4.5	32.7	25.3	15.3	9.6	12.6
1991	100	4.3	33.2	25.7	15.5	9.7	11.6
1992	100	5.1	33.5	25.5	15.2	9.6	11.1
1993	100	5.0	32.8	26.0	15.5	9.9	10.8
1994	100	5.5	32.9	26.1	15.2	9.6	10.7
1995	100	5.3	31.9	27.2	15.2	9.6	10.8
1996	100	4.6	30.3	27.9	15.7	9.9	11.6
1997	100	3.5	29.3	28.5	16.3	10.2	12.2
1998	100	3.5	27.6	28.2	16.8	10.5	13.4
1999	100	3.2	26.6	28.4	17.3	10.9	13.6
2000	100	3.2	23.5	26.9	17.9	11.4	17.1

* Sources: [1–3; 5; 7; 9; 11–16].

The statistics of demographic development of family give us information only once ten years when conducting the census of the population. So long as the results of the last census (2002) will be published only at the end of year we propose to turn to the data of previous census.

As of the 12th of January, 1989, the average family size in Ukraine makes up 3.2 persons. Living together members of families numbered 88.6%; living separately — only 5.3%. The portion of single persons living out of families is not high as well and run to 6.1%. Every third family (35.1%) consists of two members; every fourth (27.1%) — of three ones and as many again (24.1%) — of four ones (Tabl. 9). Every seventh family join five and more members (13.7%).

Table 9**Families by size. Ukraine. 1979, 1989***

Families by size	Population, total		Including			
			urban		rural	
	1979	1989	1979	1989	1979	1989
In thousands						
Number of families	13432	14057	8214	9397	5218	4660
Including families consisted of						
2 persons	4436	4939	2542	3066	1894	1873
3 persons	3939	3804	2689	2778	1250	1026
4 persons	3175	3384	2095	2448	1080	936
5 and more persons	1882	1930	888	1105	994	825
In per cent						
Number of families	100	100	100	100	100	100
Including families consisted of						
2 persons	33.0	35.1	30.9	32.6	36.3	40.2
3 persons	29.3	27.1	32.7	29.6	23.9	22.0
4 persons	23.6	24.1	25.5	26.0	20.7	20.1
5 and more persons	14.1	13.7	10.9	11.8	19.1	17.7
Mean size of family, persons	3.3	3.2	3.2	3.2	3.3	3.3

* Sources: [4; 21].

Two thirds of Ukrainian families belonged to a simple (nuclear) pattern with married couple, their children or without them. Almost every fifth family in Ukraine belonged to a compound pattern with one or more

married couples and other near relations (parents, unmarried brothers, sisters etc.).

Every sixth family (16.4%) belonged to incomplete broken pattern with one of parents with children or children without parents living with other numbers of family, or other members family living together.

The predominance of one-child families in the family structure of population in Ukraine points out the narrowed reproduction of population which is one of the principal reasons for its reduction during last ten years.

3. Migration

In the late eighties, before the collapse of the USSR, a new tendency in dynamics, structure and directions of migration flows has appeared in Ukraine. The flows of immigrants of Ukrainian origin into the Soviet republics weakened, at the same time more Ukrainians-emigrants came back to Ukraine. The absolute and relative dimensions of Ukrainians-residents in the Union republics with the exception of Russia and Belarus are getting less. The bulk of the Ukrainians have left for Ukraine.

In 1992, the radical turn happened in developing of migration processes: formerly unknown forms of migrations and new migration priorities were revealed in Ukraine. Emigration of its inhabitants abroad increased considerably, a new type of short-term shuttle migration with the commercial purposes to the East European countries, Turkey and China gained a wide scope. Ukraine become an arena of transit illegal migration. In 1989–1990, the return of formerly deported people — Crimean Tatars, Germans, Armenians, Bulgarians, Greeks, Turks-Meskhetians — started into the Crimea. After Chornobyl disaster in 1986 the ecological migration become a problem of national importance. The emigration of scientists known as “brain drain” continually grows. The migration flows between urban and rural areas change their directions: in 1992 for the first time a positive net-migration was registered to the countryside. This tendency remained till 1997. In 1994 Ukraine became a population donor in migration exchange with countries of the Old and New World as well as with CIS countries. During a few last years the migration losses appreciably reduced: its dimensions amounted to 143.2 thousands in 1994; 131.1 thousands — in 1996; 93.6 thousands — in 1998; 44.8 thousands — in 1999; and in 2000 the migration losses numbered 46.6 thousands (Tabl. 1).

In 1997 the influx of townspeople to the countryside stopped. Since then the departure of rural inhabitants started again (1.1 thousands), in 1998 their number increased to 12.7 thousands and in 1999 amounted already to 22.1 thousands. However in 2000 the influx of migrants into the countryside numbered 12.1 thousands, so it has been observed again.

The Ukraine is losing the population in the migration exchange with Russia and Belarus since 1992. This tendency still takes place though the dimensions of losses are essentially reduced. But in migration exchange with the west countries Ukraine remains the population donor giving them every year approximately 45 thousands of Ukrainian inhabitants: in 1997 — 45.7 thousands; in 1998 — 45.0 thousands; in 1999 — 44.3 thousands, and in 2000 — 40.9 thousands.

The main migration flows trends in Ukraine during 1998–2000 remained the following:

- the tendency to a consecutive shortening the repatriation of ethnic Ukrainians;
- the tendency to reducing the return flow of formerly deported people to the Crimea;
- the tendency to lessening ecological migration flows from Chornobyl disaster zone;
- the tendency to aggravation the danger of illegal migration;
- the tendency to the growth of “brain drain”.

It should be noted that the intensity of migration flows in and out of Ukraine tends on the whole to fall. The dynamics of the gross migration confirms this trend: its dimensions have been diminished from 299244 migrants in 1998 to 154037 ones in 2000 (or less almost by half).

Thus, a sharp rise of migration activity caused by the USSR collapse is in the main exhausted. The migration flows tend to reducing and migration situation — to stabilization.

Such countries as Russia, Moldova, Kazakhstan, Uzbekistan and Belarus remained as before the main migration partners of Ukraine. And Ukraine as before gives away the population in migration exchange with Russia and Belarus but the absolute dimensions of its losses are noticeably lessened. At the same time the migration influx from Moldova became bigger. The bulk of repatriants — ethnic Ukrainians arrived from Russia. The contribution of such countries as Moldova, Kazakhstan and Belarus into the repatriation of ethnic Ukrainians is not so big but more appreciable in comparison with other countries of CIS and Baltic ones.

However the emigration of Ukrainians into countries of the Old and the New World as compared with previous years has a tendency to increasing. Meanwhile the absolute size of emigrated there inhabitants of Ukraine on the whole consecutively reduces. The same tendency takes place in a case of emigration in the CIS and Baltic countries. As compared with previous years the absolute and relative dimensions of Jewish emigration from Ukraine have decreased. The same tendency is observed as to German emigration.

Thus, the contribution of migration processes into the demographic losses of Ukraine is essentially reduced. In 1999 the population decrease owing to migration exchange with other countries made up 11.3%, a year later, in 2000, — only 8.4%. Now the main contribution to progressive depopulation in Ukraine makes the nature decrease of population.

3.1. Brain drain

The emigration of qualified specialists is still in progress. They leave for countries with more attractive conditions for scientific and other professional activity. Since 1998 the growth in numbers the Doctors and Candidates of Science emigrated abroad is observed. So, in 1998 this contingent made up 117 people, in 1999 — already 136 and in 2000 — 151. On the whole for the past five years (1996–2000) 851 specialists with the scientific degrees left for other countries. Every forth was of the age under 40 and every fifth — of 41–50. Before the emigration every forth worked in the field of technical and physical-mathematical sciences, every fifth — in medical institutions and establishments, about 7% — in the field of biology. Almost 30% of emigrated specialists worked in the academic institutions; 23% — in the sphere of education; 21% — in the sphere of care or public health. The bulk of emigrated scientists who left for USA and Russia are 28.5% and 22.5% accordingly, Germany — 13.2%, Israel — 11.3%, Canada — 7.9%, Poland — 2.6%, others — 13.9%.

4. Labour potential

Though the consequences of depopulation proved to be dangerous, its destructive potential still strengthens. It will become more obvious later, in the second half of 2000s, when children born in 1991–1992 enter working age and the demographic loading grows.

Since 1999 the indices of demographic loading (number of children and teenagers under 16 together with pensioners per 1000 mid-year population of working age) have gradually reduced owing to the cohorts of people born in 1983–1984 who entered the working age. It should be expected that for a few next years the situation will be more or less stable on account of people born in 1985–1987 who will increase the population of working age. Moreover the losses of labour potential are to be small: cohorts of people born in forties, who will drop out of the working age, are not very numerous.

It should be noticed that the share of children and teenagers in the structure of demographic loading gradually decreases: in the early nineties it numbered 411 children and in the beginning of 2000 — already 340 per 1000 mid-year population of the working age. At the same time the part of pensioners has increased from 380 to 409. However the dynamics of this index was rather complicated: it has grown up to 1999 and then began reducing. This transformation took place mostly because of the countryside population. If in urban areas the indices of demographic loading by pensioners permanently increased, in the countryside there was observed the diminution of this index since 1999. This phenomenon can be explained by higher relative dimensions of mortality in the rural areas during 1985–1999 than in cities and towns. On the other hand, from the middle of nineties children are born in the countryside more often than in urban areas.

A sharp reduction in fertility, a high level of mortality and migration losses in a group of working age intensify the aging of population and will reduce its labour potential in the future. A high level and rate of population aging are observed today in Ukraine. According to the data on 1st January 2000, the people of 60 and over amounted to 20.5%.

It is extremely significant to realize that there is no reasons for expectations of a rapid positive changes in demographic situation today. The demographic crisis is deepening.

5. Concluding remarks

Thus, the modern demographic situation in Ukraine is characterized by the long-term decrease of fertility, mortality lessening in all the age groups since 1996 with its following up-growth during the last two years, increase in the number of aged population, shortening of children and teenagers portions and by the visible rise in the dimensions of population of working age. At the same time the reduction of the size and inten-

sity of migration flows between Ukraine and the former Soviet republics is observed. In case this dynamics remains, in the near future, Ukraine will achieve a zero balance in its migration exchange with CIS countries and first of all with Russia and Belarus. The emigration to the countries of the New and the Old Worlds is reduced too but not so appreciably. Now the main reasons for emigration are unemployment, ecological situation and desire to unite with relatives.

For the last few years the indices of the life expectance at birth have a tendency to increase, though the last two years one can observe its stabilization. A fall in fertility and a rise in a life-time with it following stabilization are accompanied by the further population aging.

It should be mentioned that there is a tendency to the diminution of an infant mortality level and the increase of the extra-marital births. The lessening of divorces number since 1995 and stabilization of its registration frequency at the level of 1985 as well as the up-growth of a number of registered marriages since 1996 are the characteristic signs of a modern demographic situation in Ukraine.

Glossary

1. General birth-rate/death coefficient — the related number of born living/dead number for calendar year to the average annual quantity of available population. Is measured in ‰: Crude birth and death rates.

2. General marriages/divorces coefficient — the related number of the registered marriages/divorces a year to the average annual quantity of available population. Is measured in ‰: Crude marriage/divorce rates.

3. Age birth-rate coefficients — the related number of being born by women of the given age group to the average annual women quantity in this age: Age specific fertility rates.

4. Summary birth-rate coefficient — the average number of children, born by woman through the life, attached to preservation condition in each age group of corresponding birth-rate level: Total fertility rate.

5. Age death-rate coefficients — the related number of the dead in given age per year to the average annual persons' quantity of given age: Age specific death rates.

6. Death-rate coefficients on death causes — the related number of the dead from pointed death causes to the average annual quantity of effective population: Death rates by cause of death are the number of death by cause reported for the year per 10000 mid-year population.

7. Coefficients of children's death-rate — the related number of the dead in the age of 1 year to the number of born alive: The number of death of infants under 1 year of age per 1000 live birth in the same year.

8. The expected lifetime attached to birth: Life expectancy at birth is the average number of years that a new-born would live of its entire lifetime were spent under the mortality schedule for the given age group.

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